

**Force Guided Relay SR2M**

- 2 pole relay with force guided contacts according to EN 50205
- Reinforced insulation between poles

Typical applications  
Emergency shut-off, press control, machine control, elevator and escalator control, safety relays



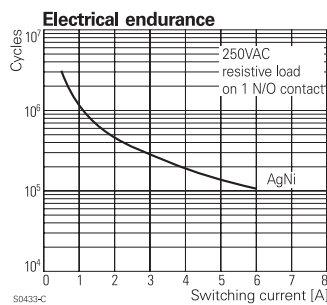
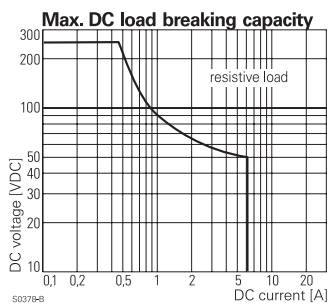
F0188-D



**Approvals**  
VDE 116064, UL E214025, TUV 968/EZ 111, CQC0617015579  
Technical data of approved types on request

**Contact Data**

|  |  |
|--|--|
| Contact arrangement  | 1 form A + 1 form B contacts<br>(1 NO + 1 NC) or<br>2 form C contacts (2 CO) |
| According to EN50205 only 1NO / 1NC (11-14 and 22-21 or 12-11 and 21-24) shall be used as force guided contacts. |  |
| Rated voltage  | 250VAC   |
| Max. switching voltage   | 400VAC   |
| Rated current  | 6A   |
| Contact material   | AgNi   |
| Contact style  | single contact, force guided   |
| 1 form A + B, 1 NO + 1NC   | type A according to EN 50205   |
| 2 form C, 2CO  | type B according to EN 50205   |
| Min. recommended contact load  | 5V/10mA  |
| Initial contact resistance   | ≤100mΩ at 1A, 24VDC<br>≤20Ω at 10mA, 5VDC                                    |
| Frequency of operation, with/without load  | 6/300min <sup>-1</sup>   |
| Contact ratings, IEC60947-5-1,<br>on 1 form A (NO) contact   | AC15-3A<br>DC13-6A   |
| Mechanical endurance   | 10x10 <sup>6</sup> operations  |



**Coil Data**  
Coil voltage range 5 to 110VDC

**Coil versions, DC-coil**

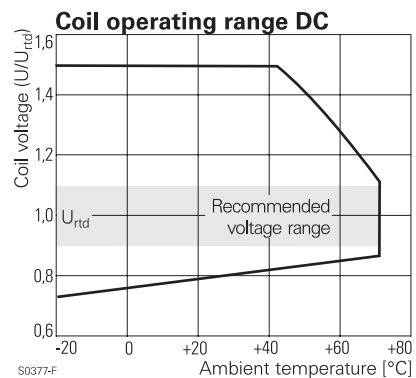
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% <sup>1)</sup> | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-------------------------------------|---------------------|
| 005       | 5                 | 3.8                 | 0.5                 | 35.7                                | 700                 |
| 006       | 6                 | 4.5                 | 0.6                 | 51                                  | 706                 |
| 009       | 9                 | 6.8                 | 0.9                 | 116                                 | 698                 |
| 012       | 12                | 9                   | 1.2                 | 206                                 | 699                 |

**Coil Data (continued)**

**Coil versions, DC-coil**

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% <sup>1)</sup> | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-------------------------------------|---------------------|
| 015       | 15                | 11.3                | 1.5                 | 321                                 | 701                 |
| 018       | 18                | 13.5                | 1.8                 | 483                                 | 671                 |
| 021       | 21                | 16                  | 2.1                 | 630                                 | 700                 |
| 024       | 24                | 18                  | 2.4                 | 823                                 | 700                 |
| 036       | 36                | 27                  | 3.6                 | 1851                                | 700                 |
| 040       | 40                | 30                  | 4.0                 | 2286                                | 700                 |
| 048       | 48                | 36                  | 4.8                 | 3291 <sup>1)</sup>                  | 700                 |
| 060       | 60                | 45                  | 6                   | 5142 <sup>1)</sup>                  | 700                 |
| 080       | 85                | 63.8                | 8.5                 | 9143 <sup>1)</sup>                  | 790                 |
| 110       | 110               | 83                  | 11                  | 17285 <sup>1)</sup>                 | 700                 |

<sup>1)</sup> Coil resistance ±12%.  
All figures are given for coil without pre-energization, at ambient temperature +23°C.



**Insulation**

|  |                      |
|--|----------------------|
| Initial dielectric strength                |                      |
| between open contacts                      | 1500V <sub>rms</sub> |
| between contact and coil                   | 4000V <sub>rms</sub> |
| between adjacent contacts                  | 3000V <sub>rms</sub> |
| Clearance/creepage                         |                      |
| between open contacts                      | microdisconnection   |
| between contact and coil                   | ≥8/8mm               |
| between adjacent contacts                  | ≥5.5/5.5mm           |
| Insulation to EN 50178, type of insulation |                      |
| between contact and coil                   | reinforced           |
| between adjacent contacts                  | reinforced           |

**Force Guided Relay SR2M** (Continued)

**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

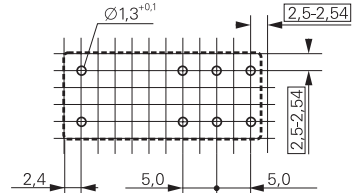
|                                      |              |
|--------------------------------------|--------------|
| Ambient temperature                  | -25 to 70°C  |
| Category of environmental Protection | RTIII        |
| IEC 61 810                           | RTIII        |
| Weight                               | 20g          |
| Resistance to soldering heat THT     |              |
| IEC 60068-2-20                       | 260°C/5s     |
| Packaging/unit                       | tube/20 pcs. |

For more detailed information see product specification 2158001

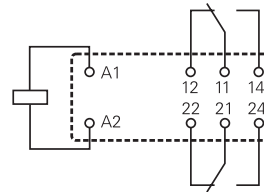
**PCB layout / terminal assignment**

Bottom view on solder pins

2 form C, 2 CO contacts

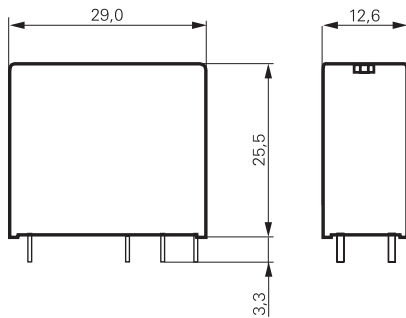


S0163-CO



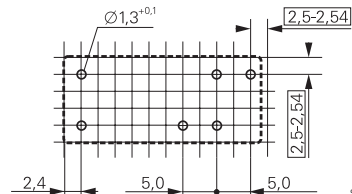
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**Dimensions**

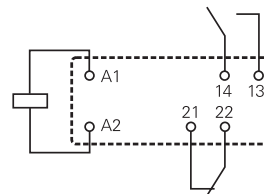


S0273-BB

1 form A + 1 form B contacts, 1 NO + 1 NC



S0163\_CU



S0163-CV

**Force Guided Relay SR2M** (Continued)

|                               |   |               |            |            |           |          |           |
|-------------------------------|---|---------------|------------|------------|-----------|----------|-----------|
| <b>Product code structure</b> | Typical product code  | <b>V23047</b> | <b>-A1</b> | <b>012</b> | <b>-A</b> | <b>5</b> | <b>11</b> |
| <b>Type</b>                   | <b>V23047</b> Relay with force guided contacts SR2M   |               |            |            |           |          |           |
| <b>Version</b>                | <b>A1</b> standard  |               |            |            |           |          |           |
| <b>Coil</b>                   | Coil code: please refer to coil versions table (e.g. 024=24VDC)                             |               |            |            |           |          |           |
| <b>Contact set</b>            | <b>A</b> single contact   |               |            |            |           |          |           |
| <b>Contact material</b>       | <b>5</b> AgNi   |               |            |            |           |          |           |
| <b>Contact configuration</b>  | <b>01</b> 2 form C contacts (2 CO)<br><b>11</b> 1 form A + 1 form B contacts ( 1 NO + 1 NC) |               |            |            |           |          |           |

Other types on request

| Product code      | Version    | Cont. material | Contact arrangement      | Coil   | Part number |
|-------------------|------------|----------------|--------------------------|--------|-------------|
| V23047-A1005-A501 | Standard   | AgNi           | 2 form C (CO)            | 5VDC   | 1393258-2   |
| V23047-A1005-A511 | wash tight |                | 1 A + 1 B, (1 NO + 1 NC) |        | 7-1415006-1 |
| V23047-A1006-A501 |            |                | 2 form C (CO)            | 6VDC   | 3-1415011-1 |
| V23047-A1006-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 6-1415011-1 |
| V23047-A1009-A501 |            |                | 2 form C (CO)            | 9VDC   | 1393258-3   |
| V23047-A1009-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 7-1415011-1 |
| V23047-A1012-A501 |            |                | 2 form C (CO)            | 12VDC  | 1393258-4   |
| V23047-A1012-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 1393258-5   |
| V23047-A1018-A501 |            |                | 2 form C (CO)            | 18VDC  | 1393258-8   |
| V23047-A1018-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 1393258-9   |
| V23047-A1021-A501 |            |                | 2 form C (CO)            | 21VDC  | 1-1393258-1 |
| V23047-A1021-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 1-1393258-2 |
| V23047-A1024-A501 |            |                | 2 form C (CO)            | 24VDC  | 1-1393258-5 |
| V23047-A1024-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 1-1393258-7 |
| V23047-A1036-A501 |            |                | 2 form C (CO)            | 36VDC  | 2-1393258-0 |
| V23047-A1036-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 8-1415011-1 |
| V23047-A1040-A501 |            |                | 2 form C (CO)            | 40VDC  | 2-1393258-1 |
| V23047-A1040-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 2-1393258-2 |
| V23047-A1048-A501 |            |                | 2 form C (CO)            | 48VDC  | 3-1415006-1 |
| V23047-A1048-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 9-1415011-1 |
| V23047-A1060-A511 |            |                |                          | 60VDC  | 2-1393258-3 |
| V23047-A1110-A501 |            |                | 2 form C (CO)            | 110VDC | 1-1415012-1 |
| V23047-A1110-A511 |            |                | 1 A + 1 B, (1 NO + 1 NC) |        | 2-1415012-1 |